

## Division of Facilities Development & Management

### Trades Section - Steamfitter

#### **Position Summary**

Under the general direction of the Trades Section Chief, Bureau of Building Management, this position is primarily responsible for applying steamfitting fundamentals to the repair, troubleshooting, installation and preventive maintenance of mechanical heating, ventilation, and air conditioning systems/equipment for assigned facilities.

This position will perform systems troubleshooting, preventative maintenance and repairs on HVAC/Refrigeration equipment including but not limited to steam traps, boilers, air handlers, VAV boxes, exhaust fans, humidification systems, circulating pumps, air and water filtration systems, pneumatic, electric and Direct Digital (DDC) temperature controls, static pressure controls, temperature control air compressors and refrigerated air driers, air cooled or water-cooled condensers and evaporative cooling towers. Environmental Protection Agency 608 certification is desired of this position to complete specific tasks/duties requiring licensure.

#### **Goals and Worker Activities:**

**45% A. Under general supervision, perform preventative maintenance, rehabilitation and new installations on complex boilers, mechanical and heating, ventilation, air conditioning, and piping systems at the Steamfitter-Journeyman level of skilled trades.**

A1. Perform preventative maintenance and inspections of all mechanical, boiler, and HVAC systems at assigned facilities.

A2. Install heating, ventilation, air conditioning systems and all related controls, points and related equipment in accordance with codes, regulations and manufacturers specifications.

A3. Read and interpret building construction plans as well as complex systems diagrams to perform analysis and repairs or to make adjustments.

A4. Access and interpret Direct Digital Control (DDC) system performances and initiate adjustments and program changes in response to customer complaints and system malfunctions.

A5. Identify and initiate appropriate actions to address seasonal needs for indoor air quality, freeze coil protection, cooling towers, heating and cooling system change over requirements.

A6. Inspect, calibrate, adjust, repair and install thermostats, pneumatic controls and valves, combination pneumatic and digital controls, damper actuators, and operators.

A7. Maintain, repair, and install vacuum and condensate return pumps, circulating hot water pumps, tower and chiller pumps as well as submersible pumps.

A8. Maintain, repair and install pneumatic compressors, air lines, piping and controls.

A9. Maintain, adjust, and repair pressure reducing stations between high and low-pressure steam lines.

A10. If HVAC or other building support systems are inoperable, immediately notify building contacts as well as the appropriate Facility Manager, informing them of the outage and expected system start-up. Coordinate arrangements for temporary services as needed.

A11. Perform seasonal services on heating, air conditioning and ventilation systems.

A12. Measure, cut, bend, prepare and join all types of piping including threading, welding, brazing, soldering, cementing, fusion and mechanical joining.

A13. Pressure test systems to detect leaks prior to startup.

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A14. Prepare sites for installation of equipment and piping, including walls, floors, ceilings, rooftops and shafts.

**30%      B. Provides coordination of maintenance with building managers and contractors. Assists with coordination of system outages with building management.**

B1. During HVAC maintenance work provide necessary troubleshooting for all unusual vibrations, noise, odors and take appropriate actions to coordinate and repair immediately or schedule repair or further analysis as deemed necessary.

B2. Assist trades supervisor or building managers in coordinating scheduled outages for HVAC/Refrigeration equipment, temperature controls and DDC system for maintenance and repairs with building management and occupants minimizing impact or loss of production and functions.

B3. Work with vendors and contractors for materials, supplies, and contracted work.

B4. Upon request from Facility Manager and/or building occupant or notification from a central response authority, provide urgent HVAC/Refrigeration repair assistance, and/or contractor oversight during normal work hours and during non-work hours.

B5. If HVAC or other building support systems are inoperable, immediately notify building contacts as well as the appropriate Facility Manager, informing them of the outage and expected system start-up. Coordinate arrangements for temporary services as needed.

**25%      C. Provides documentation of piping, mechanical changes and completed work. Perform other duties as assigned.**

C1. Work with the CMMS Administrator or building management to incorporate HVAC procedures for preventative maintenance needs.

C2. Order supplies and equipment for HVAC equipment repairs and inventory.

C3. Document work on the computerized maintenance management system.

C4. Document piping and HVAC equipment changes within building as-builts.

C5. Assist in the development and documentation of routine rescheduled maintenance needs for all HVAC equipment and various types of temperature controls and temperature control pneumatic controls in assigned facilities.

C6. Update HVAC/Refrigeration equipment lists whenever new equipment replaces old equipment or whenever new equipment is installed. This includes larger project related improvements.

C7. Perform inventory of material needs for upcoming scheduled maintenance and coordinate procurement of those materials.

C8. Perform other duties as assigned by supervisor or building management.

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#### **Knowledge, Skills and Abilities:**

1. Advanced knowledge of the operation and maintenance of various types of large and small HVAC/Refrigeration equipment typically provided in commercial office buildings.
2. Advanced analytical skills necessary to diagnose and correct mechanical system failures in HVAC/Refrigeration equipment.
3. Ability to read and understand blue prints, operation and maintenance manuals and HVAC/Refrigeration equipment temperature control sequences and drawings.
4. Advanced experience, knowledge and ability to locally or remotely access various types/manufacturers of computerized direct digital control (DDC) systems as such that your level of understanding allows you to monitor, modify and troubleshoot various types of control systems.
5. Advanced knowledge and skills using various types of HVAC/Refrigeration testing equipment to enhance diagnostic analysis and the recording as well as documentation of performance data for various types forced air and fluid heat transfer systems.
6. Ability to maintain effective working relationships with fellow trades, tenants, and management.
7. Ability to learn and perform all essential job functions accurately and safely with minimal supervision.
8. Basic mathematical skills, including addition, subtraction, multiplication and basic algebra, necessary to complete HVAC/Refrigeration work.
9. Ability to perform duties promptly and efficiently under the pressure of deadlines and with interruptions.
10. Computer skills to access and interpret DDC System data.
11. Ability to maintain documentation and records.
12. Ability to work independently and use sound judgment.
13. Basic knowledge and skill in paper and electronic record keeping and inventory practices, procedures, and supply ordering.
14. Basic knowledge of the organization of resources, materials, and equipment.
15. Intermediate knowledge of customer service skills.
16. Ability to be flexible to meet the needs of the customers.
17. Ability to work with various staff on a project-by-project basis.
18. Ability to conduct work with attention to detail.
19. Ability to measure, cut, bend, prepare and join all types of piping including threading, welding, brazing, soldering, cementing, fusion and mechanical joining.
20. Environmental Protection Agency 608 certification.

#### **Special Requirements:**

- Ability to work some nights and weekends to respond to critical building issues, conduct preventive maintenance and care of assigned buildings.
- Valid driver's license and the ability to meet DOA Fleet standards required to drive state-owned vehicles for the performance of job duties.

#### **Physical Demands:**

- The worker must be able to perform the following physical job demands throughout the workday with or without a reasonable accommodation.

Ability to grasp, lift and/or carry tools, equipment or supplies, up to 50 pounds on a regular basis, physically be able to work in various positions, e.g., with arms above your head for periods of time; bending, twisting, crawling, squatting, climbing, stooping or kneeling; ability to enter, exit and perform duties in confined spaces or on scaffolding, ladders or stairs; standing, sitting or walking, while continuously performing job functions, & ability to wear protective equipment, e.g.: hearing, foot, or eye protection, etc.

**Working conditions and environment:** Physically be able to work in various environments without adverse physical reaction, e.g.; within extreme temperature ranges; outdoor in the summer and winter; in hot, noisy, dirty or dust-filled areas; at heights above 30 feet, etc.